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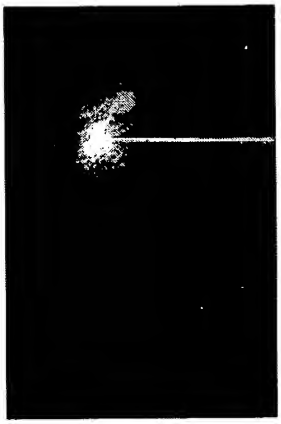
ISO9001

PRK, TMR, and Angioplasty Laser Gases

Description



There are two (2) primary applications for excimer lasers in medicine. These two (2) applications are **LASER PHOTO REFRACTIVE KERATECTOMY (PRK)** and **LASER ANGIOPLASTY**.

Laser Vision Correction

Corneal Refractive Surgery for the correction of myopia, hyperopia and astigmatism has been safely demonstrated and has proven effective. In October of 1995 the United States Food and Drug Administration (FDA) approved the clinical use of excimer laser systems for PHOTO REFRACTIVE KERATECTOMY. In Europe, Asia, South America and Canada the PRK procedure has been helping correct vision since 1990.

The PRK procedure is soon expected to correct over one million eyes worldwide per year. Spectra Gases is supporting the PRK medical application with excimer laser gases and unique excimer handling equipment.

Laser Angioplasty

The FDA approved in 1993 the use of a fiber delivered XeCl (308 nm) excimer laser beam for removing calcified plaque in arteries. Excimer laser angioplasty is minimally invasive, debulking arteries supplementing balloon angioplasties.

Transmyocardial Revascularization

Another medical application under investigation is Transmyocardial Revascularization (TMR). TMR creates and maintains open channels through myocardiaum and is still experimental. The hope is that excimer based systems using the fiber delivered XeCl (308 nm) wavelength will ultimately reduce angina as well as the number and risk of bypass surgeries.

Typical PRK Excimer Laser Gas Mixture - 193 NM					
Gas Mixture	**Cyl. Size**	**Volume (Liters)**	**Pressure PSIG/BAR**	**CGA**	**Recommended Regulator Series**
0.20% Fluorine 9.0% Argon Balance Helium and/or Neon	1 2 3 4	7500 6000 2000 1000	2400/167 2150/149 1925/134 2000/139	679	7340

Typical TMR and Angioplasty Excimer Laser Gas Mixture - 308 NM					
Gas Mixture	**Cyl. Size**	**Volume (Liters)**	**Pressure PSIG/BAR**	**CGA**	**Recommended Regulator Series**
0.06% Hydrogen Chloride 0.03% Hydrogen 1.5% Xenon Balance Neon	1 2 3 4	7500 6000 2000 1000	2400/167 2150/149 1925/134 2000/139	330	7340

Note:	DIN, JIS and other cylinder valves are available upon request (country dependent).

Excimer Laser Premixes | Halogen Gas Mixtures | Laser Rare Gases | Buffer Gases | Semiconductor Laser Gases
PRK,TMR and Angioplasty Laser Gases | CO2 Laser Mixture | Visible Infrared Laser Gases
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